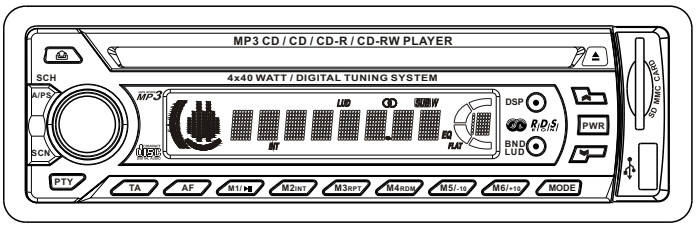
Instruction manual



Car Stereo Compact Disc
CD/CD-R/CD-RW/MP3 SD/MMC USB
Media Player with PLL FM Stereo Radio,
Radio Data System with
PTY Detachable Front Panel System

Function

Car Stereo Compact Disc CD/CD-R/CD-RW/MP3 SD/MMC USB Media Player with PLL FM Stereo Radio, Radio Data System with PTY Detachable Front Panel System

English

FEATURES

The unit features a detachable front control panel, FM/FM stereo, CD/MP3 player the following features:

- The best stations memory automatically memorizes the best (strongest) station in the order their strength(AS)
- Electronic Volume, Bass, Treble, Fader and Balance control
- Precision electronic tuning with phase-lock loop(P.L.L.) circuitry
- Programmable 18 preset memory tuning (6 each for FM1/FM2/FM3)
- Loudness control Manual/Auto(Seek)/up and down tuning control
- Band selector for FM1/FM2/FM3
- Display control(Frequency, Station Name, Program Type, Clock)
- Clock Function in RDS
- CD Repeat Function
- CD and MP3 files on CD/CD-R/CD-RW player function
- Preamplified Line-out for external amplifier
- Detachable front panel protects against theft
- Lighting system
- RDS Function:
- PI (Program Identification) TA (Traffic Announcement)
  PS (Program Service Name) PTY (Program Type)
  AF (List of Alternative Frequencies) TP (Traffic Program)

Catalogue

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English

Warnings

The exclamation point within the triangle is a warning sign alerting the user of important instructions accompanying the product.

The lightening flash with arrowhead symbol within the triangle is a warning sign alerting the user of voltage inside the unit.

English

The reduce the risk of electric shock, do not remove the cover. No user serviceable parts inside the unit. Refer all servicing to qualified personnel.

Invisible laser radiation when the unit is opened or interlocks defeated.

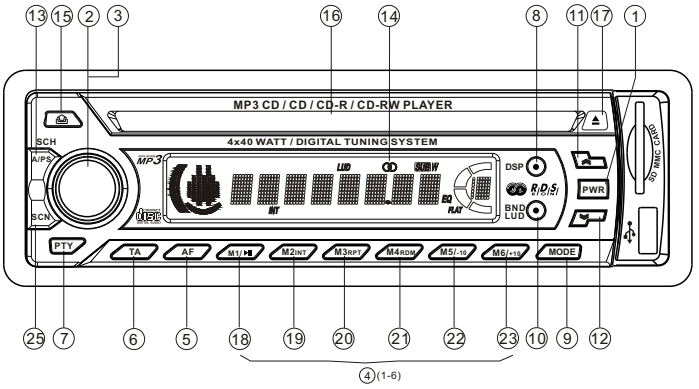
Avoid exposure to laser beam. User of controls, adjustments or procedures other than those specified herein may result in hazardous radiation exposure.

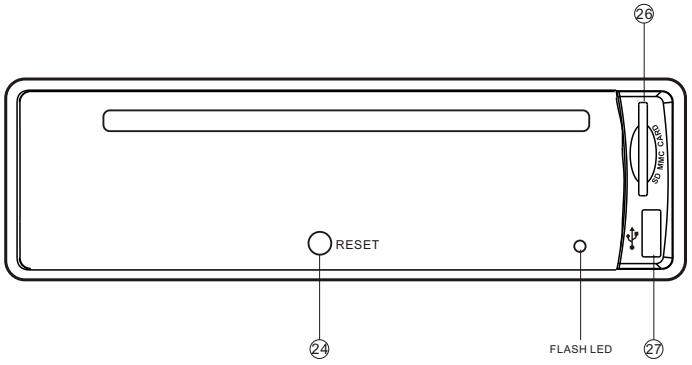
This unit must not be exposed to moisture or rain.

This unit should be positioned so that it is properly ventilated.

Do not expose this unit to direct sunlight or heat radiating sources.

Drawings





English

Location

English

LOCATIONS OF CONTROLS

1. POWER ON/OFF
2. FUNCTION SELECT BUTTON: BASS/TREBLE/BALANCE/ FADER/TA SEEK/PI SOUND/RETUNEL/MASK DP/BEEP 2ND
3. VOL UP/VOL DOWN FRO BASS/TREBLE/BALANCE/FADER (+,-)
4. PRESET STATIONS (1,2,3,4,5,6)
5. AF FUNCTION (ALTERNATIVE FREQUENCIES)
6. TA FUNCTION (TRAFFIC ANNOUNCEMENT)
7. PTY FUNCTION (PROGRAM TYPE)
8. DISPLAY BUTTON (DSP)
9. MODE BUTTON(MOD)
10. BAND/LOUD BUTTON (BAND/LUD)
11. 12. AUTOMATIC OR MANUAL TUNING (FREQ UP ⩔ OR FREQ DOWN ⩖ / CD TRACK/SEARCH BUTTON
13. AUTO SEEK SEARCH TUNING (A/PS)
14. LCD DISPLAY
15. PANEL RELEASE BUTTON (⏏)
16. CD SLOT
17. CD EJECT BUTTON (▲)
18. PAUSE BUTTON
19. INTRO BUTTON (PREVIEW ALL TRACKS)(INT)
20. REPEAT BUTTON (RPT)
21. RANDOM BUTTON (RDM)
22. 23. -/+10 TRACK SEARCH DOWN/UP
24. RESET BUTTON
25. SCAN AUTOMATIC TUNING CONTROL (SCN)
26. SD/MMC CARD JACK
27. USB JACK

INSTALLATION
PRECAUTIONS

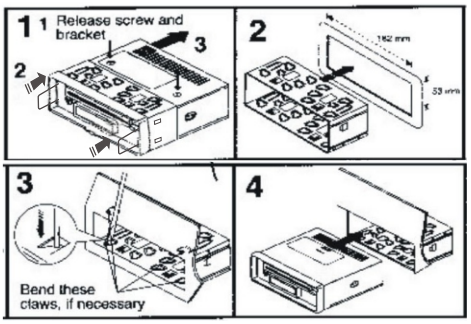
- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.
- Be sure to remove the front panel before installing the unit.

Mounting angle adjustment

Adjust the mounting angle to less than 30°.

MOUNTING EXAMPLE

Installation in the dashboard

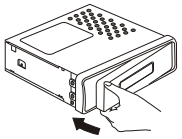


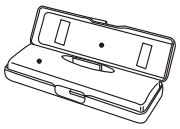
⚠ Keep the release key in the safe place as you may need it in future to remove the unit from the car.

Installation

Detaching and attaching the front panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.





English

DETACHING THE FRONT PANEL

Before detaching the front panel, be sure to press the PWR button to turn off the unit first.

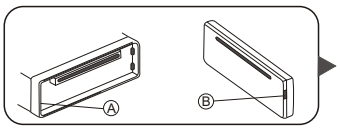
Then press the button and detach the panel by pulling it towards you as illustrated.

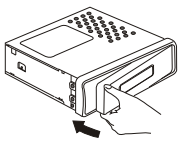
Note: Be sure not to drop the panel when detaching it from the unit.

ATTACHING THE FRONT PANEL

Make sure the front panel is the right way up when attaching it to the unit as it cannot be attached upside down. Bring side B of panel to side A of main unit. Inset the panel in and push until it clicks.

Panel is attached.



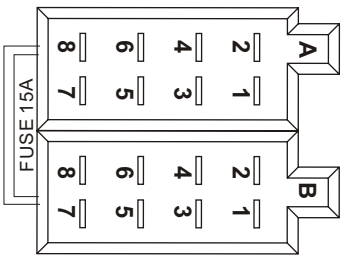


Notes:

- Do not press the front panel hard against the unit when attaching it. It can be easily attached by pressing it lightly against the unit.
- When you carry the front panel with you, put it in the supplied front panel case.
- Do not press hard or give excessive pressure to the display window of the front panel when attaching it to the unit.

ISO CONNECTOR

RCA Jack Line Out(Rear)-Gray
:Red(right)
:White(left)



CONNECTOR A

1.
2.
3.
4. YELLOW: MEMORY +12V
5. WHITE: AUTO ANTENNA OUTPUT
6.
7. RED:+12V (TO IGNITION KEY)
8. BLACK: GROUND

⚠ RED wire(connector A no.7)must be connected by car ignition key in order to avoid that car battery becomes weak when the car will be not used for long period.

CONNECTOR B

1. VIOLET: REAR RIGHT SPEAKER(+)
2. VIOLET/BLACK: REAR RIGHT SPEAKER(-)
3. GRAY: FRONT RIGHT SPEAKER(+)
4. GRAY/BLACK: FRONT RIGHT SPEAKER(-)
5. GREEN: FRONT LEFT SPEAKER(+)
6. GREEN/BLACK: FRONT LEFT SPEAKER(-)
7. BROWN: REAR LEFT SPEAKER(+)
8. BROWN/BLACK: REAR LEFT SPEAKER(-)

Installation

Maintenance

FUSE REPLACEMENT

If the fuse blows, check the power connection and replace the fuse. IF the fuse blows again after the replacement, there may be an internal malfunction. In this case, consult your near est repairing center.

English

Warning

Use the specified amperage fuse for each lead. Use of a higher amperage fuse may cause serious damage.

OPERATING INSTRUCTIONS

1. POWER ON/OFF

By pressing this key(1), the unit is switched on and off.
This unit is turned on by pressing any key.

2. SELECT(SEL)

3. VOLUME KNOB

Rotate Volume up/down knob to control the VOLUME to select other functions, press the SEL(2) button shortly until the desired functions is shown on the display. Figure 1 shows how control functions are selected using the SEL button.

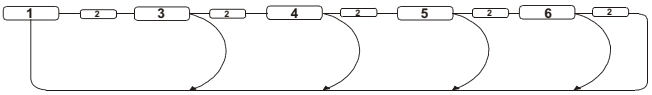
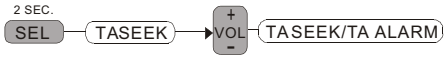


Fig. 1 Selection of sound control functions

1. VOLUME 2. SELECT 3. BASS 4. TREBLE 5. BALANCE 6. FADER
To increase or decrease the volume by rotating the volume knob. Th ese buttons can be used to adjust the BASS, TREBLE, BALANCE and FADER.

TA SEEK/TA ALARM(2)

When press the SEL button(2) for more than 2 seconds, it is activa ed as selecting mode of these function.
TA SEEK Mode or TA ALARM mode is selected by rotating the volume knob.



Operation

TA SEEK mode:

When newly turned station does not receive TP information for 5 sec, the radio retunes to next station which has not the same station(PI) as the last station, but has the TP information. In TA seek mode, the current station can be changed to the completely different station because the unit searches TP station when the field strength of the current station is very weak, or the current station has no TP signal.

-TA ALARM mode:

Any automatic retune mode is not activated, just can be heard Beep sound.

PI MUTE/PI SOUND

When press the SEL button for more than 2 seconds, it is activated as selecting mode of these function.

RETUNE L/S

When press the SEL button for more than 2 seconds, it is activated as selecting mode of these function.

MASK DPI(2)

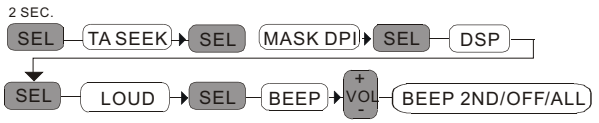
When press the SEL button for more than 2 seconds, it is activated as selecting mode of these function.

MASK DPI: masked only the AF which has different PI.

MASK ALL: masked the AF which has different PI and NO RDS signal with field strength.

BEEP MODE(2)

When press the SEL button for more than 2 seconds, it is activated as selecting mode of these function .



4. PRESET STATIONS(1,2,3,4,5,6)

(A) RADIO MODE:

When press short, these keys select a preset station directly. When press longer than 1 sec., current station is stored in preset memory bank. When PTY mode is selected, the PTY switch is shared as foll ows:

PTY music group---PTY speech group---OFF

MUSIC	SPEECH
1. POP M, ROCK M	1. NEWS, AFFAIRS, INFO
2. EASY M, LIGHT M	2. SPORT, EDUCATE, DRAMA
3. CLASSICS , OTHER M	3. CULTURE, SCIENCE, VARIED
4. JAZZ, COUNTRY	4. WEATHER, FINANCE, CHILDREN
5. NATION M, OLDIES	5. SOCIAL, RELIGION, PHONE IN
6. FOLK M	6. TRAVEL, LEISURE, DOCUMENT

(B) CD/MP3 PLAYER MODE:

1. PAUSE 2. INTRO 3. REPEAT 4. RANDOM

USING THE RDS FUNCTION

What is RDS?

The RDS (Radio Data System) is a digital information system developed by the EBU (European Broadcast Union). Piggy-backed on normal FM broadcasts, RDS offers a variety of information services and automatic retuning functions for RDS-compatible car stereos. In 1988, RDS became available in the United Kingdom, France, West Germany, Ireland and Sweden. Test transmissions are being conducted in many other European countries. It is expected that RDS will be available in most western European countries in the near future.

5. AF/REG function (ALTERNATIVE FREQUENCIES)

When press short, AF/REG switching mode is selected.

When AF/REG switching mode is selected, the radio checks the signal strength of the AF all the time. When press long, it is activated as regional mode ON/OFF.

-Regional mode ON:

AF switching or PI SEEK is implemented to the station which have all PI codes same as current station. REG segment is turned on in LCD display.

-Regional mode OFF

The regional code in the format of PI code is ignored when AF switching or PI SEEK is implemented.

6. TA function (TRAFFIC ANNOUNCEMENT)

When press short, it is activated as TA mode on or off.

When TA mode is on and traffic announcement is transmitted.

-When the unit is in CD/MP3 mode, it will switch to radio mode temporarily.
-If the volume level was under the threshold point, it will be raised to the threshold point.
-When TP station is received, TP segment is turned on in LCD display.

7. PTY function (PROGRAM TYPE)

PTY MUSIC---PTY SPEECH---PTY OFF

While selecting PTY type, its selection is impremented by preset buttons as described in preset key. When PTY is selected, the radio starts to search corresponing PTY information, and stops if the corresponding PTY information is detected.

8. DISPLAY(DSP)

When this key is pressed it is operated as the conversion of each display mode as follow.

1) In case of receiving RDS station

RADIO MODE PS---CT---FREQ---PTY
CD/MP3 PLAYER MODE CDP---CT---PS---FREQ---PTY

2) In case of receiving NON RDS station

RADIO MODE CLOCK---FREQ---NO PTY
CD/MP3 PLAYER MODE CDP---CT---FREQ---NO PTY

Each display time is several seconds, and come back to 1st position after several seconds.

⚠ CT=clock time FREQ=frequency

9. MODE BUTTON(MOD)

By pressing this key, user can select.
RADIO mode or CD/MP3 PLAYER mode.

10. BAND /ENTER BUTTON(BND/LUD)

Each band is toggled cyclically by pressing this key FM1-FM2-FM3. Press Loudness button shortly to increase Bass and Treble effects at low volume level. LOUD appears in the display.

11.12. AUTOMATIC OR MANUAL TUNING(FREQ UP ≽ OR FREQ DOWN ≼)

(A) RADIO MODE

When press short, these keys are operated as MANUAL tuning mode.

When press longer than 1 sec., they are operated as SEEK tuning mode.

(B) CD/MP3 PLAYER MODE

When press short, they are operated as TRACKUP/DOWN mode.
When press longer than 1 secretary., they are operated as CUE or REVIEW mode.

`

13. AUTO SEEK SEARCH TUNING(A/PS)

By pressing shortly, the radio searches for each preset station. When field strength level is bigger than the threshold level of stop level, the radio is holding at that preset number for 5 sec. With releasing mute, and then searches again.

By pressing longer than 1 sec, and then 6 strongest stations are preset to the corresponding preset number.

When AS operation is finished, the radio executes the preset scan.

14. LCD DISPLAY

The liquid Crystal Display will display the current state of the unit.

15. PANEL RELEASE BUTTON

Press this button and the left-hand part of the panel will be released.

CD CONTROL LOCATION OF PARTS

11. 12. SKIP TRACK/SEARCH BUTTON

FORWARD AND REVERSE TRACK SEARCH(or changing songs)

Press the SKIP button(TUN ⩔ or TUN ⩖) during play to go to the desired track(song).

TUN ⩔ ...REVERSE TUN ⩖ ...FORWARD

Press and hold the SKIP button(TUN ⩔ or TUN ⩖) during play to scan the disc at high speed. When the desired music section of the disc is found, release the button. Normal play will resume. When CD/MP3 play is finished, CD/MP3 mode automatically changes to radio mode.

16. CD SLOT

17. CD EJECT BUTTON

Press the EJECT button(17) to remove the CD.

18. PAUSE BUTTON

During PLAY mode, press PAUSE button(18) to PAUSE . Press it again to resume play.

19. INTRO BUTTON(Preview all Tracks)

When this button (19) is pressed, INT indication is displayed and the first several seconds of each track of the disc are played. Press again to stop intro and listen to track.

20. REPEAT BUTTON (RPT)

When this button is pressed, RPT indication is displayed and play of the selected track will be continually repeated until the Track Repeat mode is cancelled by pressing RPT button (20) again.

21. RANDOM BUTTON (RDM)

When this button is pressed, RDM indication is displayed and each track of the disc are played in random instead of normal progression. To cancel RANDOM mode, press RDM button (21) again.

22,23. 10 TRACK DOWN/UP SELECT:

(In case of MP3/SD/MMC/USB files)

5: 10 TRACK DOWN 6: 10 TRACK UP

HOW TO SELECT MP3 FILES

Searching Track

- Press A/PS, then searching track is activated.
- Rotate the volume knob to select the song you want.
- Press SEL to confirm.
- Then automaticalty the song you selected will start.

* Press SEL, then the song you selected will start.
* digital Audio button assigned.

BAND	Mp3 NAVIGATION MODE SELECT
1	PLAY, PAUSE
2	INT
3	RPT
4	RDM
5	10 TRACK DOWN
6	10 TRACK UP
SEL	MENU

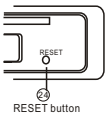
RESET

Reset button(24) is placed on the housing. The reset button is to be activated for the following:

Initial installation of the unit when all wiring is completed.

All the function button do not operated.

Error symbol on the display.



25. SCN AUTOMATIC TUNING CONTROL (SCN)

The key is operated as RADIO SCAN. The operation is similar as normal search but different thing is holding 5 seconds on every station detected in RADIO SCAN mode.

Specification

English

SPECIFICATIONS

FM SECTION

Frequency range	87.5-108.0MHz
Channel step	50KHz
Intermediate frequency	10.7MHz
Sensitivity	2μV at 30dB S/N
Stereo separation	>30dB
Signal to noise radio	>60dB

CD/MP3 PLAYER SECTION

Signal to Noise Ratio	>60dB
Channel Separation	>50dB(1KHz)
Frequency Response	20Hz-20KHz

LINE-OUT

Output	350mV max.
Impedance	10KOhm

GENERAL

Power Supply Voltage	DC 13.2 Volts Negative Ground
Max Current Consumption	6A
Max Output power	40W x 4 CH

⚠ Specifications and the design are subject to possible modification without notice due to improvement.